

# SPORTS

## CHESS

Leon Kasparov has won the final world championship challenge match to Vilnius, beating Vasily Smyslov 6.5-4.5. The match between world champion Anatoly Karpov and Kasparov will be held this year.

30-year-old Leningrader Irina Levitina has won the right to challenge her compatriot Maya Chiburdanidze's title of chess "queen". Their match will be held this year. Levitina has achieved this success by winning the final world championship challenge match in Sochi, beating Lidia Smirnova from Kiev 2-0 after winning the 12th game.

The struggle was very keen. Levitina had had a two-point advantage earlier but her rival managed to bridge the gap. Later, Levitina again took the lead 5.5-4.5, but the Kiev player threatened to tie up with her in the 11th game. Though close to success, she ultimately had to be content with half a point. And then came her defeat in the final game.

Irina took up chess at the age of 10. She was a national junior champion, a four-time adult champion, and was twice on the national teams which won world Olympiads. This is the third time she is fighting for the crown.

Viktor DABKIN, chess observer



## To the 'accompaniment' of spring flowers

The last "chord" of the Olympic season for the Soviet figure skaters was the national championship in the capital of Uzbekistan, Tashkent. In this Central Asian republic figure skating is a young sport, and the championship became a stimulus of



Yelena Butanova and Alexei Solovov, winners of the national dancing title.

Photo by Mikhail Dyshlyuk

sports for its development. The local residents gave a warm welcome to the participants, whose performances were held to the "accompaniment" of spring flowers.

The top members of the national team did not take part in the championship, as they are now on a traditional foreign tour with an exhibition programme of the world's best skaters, now that the world championship in Ottawa is over. Still, the Tashkent competition aroused much interest as it determined those who will start the new four-year period among the chief candidates to the national team.

In the pairs, success came to 1984 Olympic bronze medalists Leningraders Larisa Seleznyova and Oleg Makarov. They had tough competition from Leningraders Yelena Bechke and Valery Kornyenko, who won their first bronze medal. They are the discoverers of the tournament.

The dances were confidently won by Muscovites Yelena Butanova and Alexei Solovov, who are coached by Olympic champion Lyudmila Pakhomova. Specialists have noted that they are entering their maturity. Violy Kostomarov from Khabarovsk won the men's singles and Natalya Lobacheva from Sverdlovsk won the women's singles. They will be the chief rivals of the leaders in the new season.

## PARREIRA GOES

Carlos Alberto Parreira, head coach of the Brazil's national football team, has decided to quit his post following the refusal by the country's football federation to meet his demand for higher wages.

The problem between the federation and Parreira is of a financial nature, stressed director of the Brazilian federation Nelson Gomes. Parreira did not

have the time to show his ability as a coach of the national team. In his one year with the team it played 14 international games, winning five, drawing seven and losing two, he added.

According to the Brazilian press, the federation has in mind several other candidates, among them formerly noted players-turned-coaches Did and Elni.

Vladimir McMILLIN

"Moscow News" and "MN Information" gives you a full idea of life in the Soviet Union for the week.

Subscription to "Moscow News" and "MN Information" can be taken out with the following firms.

### FINLAND

• Kansankulttuuri Oy, Kasarminkatu 44, 4 krs 00130 Helsinki 13

• Akateeminen Kirjakauppa Subscription Department, Postilokero 128, 00101 Helsinki 10

• Suomalainen Kirjakauppa Oy c/o Rautatie Oy Subscription Dept., P.O. Box 2 01641 Vantaa 64

### GHANA

• Science Spot Bookshop, P.O. Box 10331, Accra North

• The University Bookshop, P.O. Box 1, Legon

### INDIA

• N.C.S.H. New Century Bldg, 41-B Sidero Industrial Estate Ambatur, Madras-600008

• Visalandra Publishing House Chandram Bldg, Vijayawada-520004 Andhra Pradesh

• Vijay Stores Station Rd., Anand-388001

• Vijay Stores 62, Kalyan Bhuvan, Ahmedabad-1

• Bingsha Shatabdi 22/A Arabinda Sam, Calcutta-5

For all questions involving non-receipt of the paper, delivery of the paper to a new address, etc., please contact the firm from whom you obtained the subscription

DEAR READERS! In other countries subscription for "MN Information" can be taken out with companies which do business with V/O Mezhdunarodnyye Knigi. The "Moscow News" weekly is available in Russian as well. Contact the firm or agency handling subscription for Soviet periodicals to subscribe.

## USA VIOLATES OLYMPIC CHARTER

(Continued from page 1)

and the rules of the Charter, which it is written that the Olympic Games contribute towards the creation of a better and more peaceful world and towards goodwill among peoples.

The violations of the Olympic Charter, the anti-Soviet campaign waged by reactionary circles in the USA with the complicity of the US authorities, is noted in the statement, as an abnormal situation. Under the circumstances, the Soviet N.O.C. appeals to the IOC and its President J. A. Samaranch that the situation existing on the eve of the Los Angeles Olympic Games be urgently considered at an emergency meeting of the International Olympic Committee Executive and that strict observance be demanded from the American side of the Olympic Charter as well as effective steps to guarantee the safety of Olympic participants and guests.

## Vladimir Sainikov's concern

To enter an Olympics is a coveted dream of every athlete. Vladimir Sainikov, Moscow Olympian triple steeplechase champion and world record holder, told a TASS correspondent.

At present, the world's athletes are preparing for the Games, and so am I, but I'm worried by the anti-Soviet hysteria now stirred up in the USA, he said.

One is thus doubtful what all athletes will be allocated necessary conditions envisaged by the Olympic Charter, whether the Olympians from socialist countries will be subjected to political pressure, which is reprehensible, resulting and certainly in all principles of Olympic sports.

There are many violations of the Olympic Charter by the US Games organizers. I would add just one thing: the USA is spending enormous funds for development of new nuclear missiles, failed to find the money for the construction of a new Olympic Village, thus breaking the tradition of such villages where athletes complete a close-knit family. They will be kept in different places in Los Angeles.

Doubtless, I would like to see again to put my challenge to the lofty title of an Olympic champion, but would like to stress once again that athletes are worried about reports of the "anti-Olympic" situation arising in Los Angeles.



## EDITORIAL BOARD

Address: 16/2 Gorky St. Moscow, USSR.  
Published Tuesday and Saturday  
Index: 90078

MN INFORMATION No. 30, 1984

No. 30 (545), April 17-20, 1984

Price 5 kopeks

## Reply to 'Krefeld initiative' members

The road to talks on limiting and reducing nuclear arms could be unblocked. For this to be achieved one thing is needed—to end the deployment in Europe of American first-strike missiles and to remove them. This would eliminate the need for our countermeasures, caused by US efforts to upset the regional strategic balance of power. Chairman of the USSR Council of Ministers Nikolai Tikhonov emphasizes in his reply to an appeal from members of the "Krefeld initiative"—a broad public movement in West Germany—addressed to the governments of the states-signatories of the Final Act of the Conference on Security and Cooperation in Europe. The authors of the appeal urge action to end the arms race, primarily through an immediate halt to the deployment of missiles.

The Chairman's reply also emphasizes the vital need for reaching mutually acceptable agreements on prevention of the militarization of space, banning chemical weapons and limiting conventional arms. Tikhonov stressed that the USSR was looking forward to receiving an honest and businesslike reply to the proposals it had put forward in Stockholm, Vienna, Geneva and at other forums.

## FROM the SOVIET PRESS

### PSEUDO-PEACEFUL WASHINGTON

The 3rd edition of the Pentagon pamphlet "The Soviet Military Power" is described by Pravda as a collection of fabrications and cheap tricks.

In its editorial, the newspaper notes that the republication of this example of anti-Soviet propaganda is hardly accidental. In election year, the administration is bent on convincing Americans that its policy aimed at fanning up tension, speeding up the arms race and at brazenly robbing the taxpayer to finance

the military and industrial complex is justified. At the same time, the pamphlet represents a White House promise to the American monopolies that it will continue to feed them rich dividends from the Treasury. Washington also needs this publication in order to intimidate its allies with the "Soviet threat" and in this way to force them to tow the line in the implementation of its militarist plans. (Continued on page 2)



In the photo: roundup.

Photo from "Camble-18" magazine

## MAY 1 APPEALS

The CPSU Central Committee has issued its traditional appeals to the Soviet people and to the peoples of other countries in connection with the approaching May 1st holiday, the Day of International Solidarity of Working People. The appeals reflect the principles and aims of Soviet domestic and foreign policy.

Peoples of the world! Fight resolutely imperialist aggression and violence, struggle for the elimination of hotbeds of tension and crisis situations in Asia, Africa and Latin America!

Peoples of Europe! Step up your struggle for the removal of the new American nuclear missiles from Western Europe!

Peace, security and cooperation to Europe!

People of the entire globe! Widen your struggle against the aggressive forces of imperialism, for the elimination of the threat of nuclear war! Demand a ban on nuclear, chemical and other weapons of mass destruction! Let us curb the arms race, let us preserve detente and peace!

These are just some of the CPSU Central Committee appeals.



USA. Washington's uncontrolled arms race policy was condemned recently at a massive anti-war demonstration in New York. The demonstrators also objected to the city being turned into a home port for warships carrying nuclear weapons. Photo by V. Kikilo (TASS)

## Security for World Ocean

In reply to the appeal by the 38th session of the UN General Assembly the USSR is prepared to start talks on limiting naval operations, limiting and reducing naval weapons and extending measures of confidence to the seas and oceans especially in areas with the most busy lanes or with the most likely possibility

of a conflict arising, stresses a letter by Andrei Gromyko to UN Secretary-General Perez de Cuellar.

The letter contains new Soviet proposals on the matter: — to agree on the non-expansion of the naval operations of states in the areas of conflicts or tensions.

— to seek out solutions which would remove a situation where the fleets of great powers cruise for long time far away from their shores.

— to pull out warships—carriers of nuclear weapons—from definite areas of the World Ocean, establish limits on the use of means of mass destruction. (Continued on page 2)

## DEEP ANXIETY

Brussels. The heads of 24 European nations and 14 international organizations were present at an expanded session of the International Committee for European Security and Cooperation which took place here recently.

The final communiqué stresses the deep concern of the European peoples over the deterioration in the international situation and, in particular over the deployment in Europe of new nuclear missiles.

The nuclear powers are urged to formulate, and comply with norms of mutual relations that would envisage renunciation of the use of means of mass destruction.

The participants appealed to all nuclear powers to pledge themselves not to be the first to use nuclear weapons, and that agreement be reached on the non-use of military force in relations between those nations who signed the Final Act of the Conference on Security and Cooperation in Europe.

## 'The Washington Post' accusations

Washington. Constantly escalating over the past few months (its armed interference in Central America, the Reagan administration, while trying to conceal its real aims in that region, has been brazen in lying to Congress and the American people. This is the conclusion drawn by "The Washington Post" in its analysis of Washington's acts of piracy in Central America.

A little over one year ago, writes the paper, President Reagan assured his compatriots that he was not going to "Americanize" the war in El Salvador. At the time, there were 60 US military advisers there, with another 30 in neighbouring Honduras.

Now there are almost 3 thousand US servicemen in Honduras alone.

A series of "emergency" war games, the paper points out, has made it possible for the Pentagon to train in Honduras thousands of its soldiers for hostilities and to set up a number of military facilities—all this without the sanction of Congress whether for the deployment of US troops or for the building of bases. "The role and presence of the USA rapidly grow, while we are continually assured that nothing is happening, that this is just routine training," said Congressman M. Barnes, a Maryland Democrat.

## USSR for observance of Olympic rules and traditions

We do not aim to boycott the Summer Olympic Games in Los Angeles and believe there should be equal conditions for all going to Los Angeles, said Marat Gramov, Chairman of the Sports Committee of the USSR and Chairman of the National Olympic Committee of the USSR, addressing a press conference for Soviet and foreign journalists, in Moscow.

He noted that the recent Statement issued by the National Olympic Committee of the USSR which voiced serious concern over the forthcoming Los Angeles Olympic Games had aroused a lot of comment in various countries, most of them agreeing with the Soviet viewpoint.

Our position is clear and unequivocal, he said. We are for Olympic Games which preserve and closely adhere to the rules of the Olympic Charter and Olympic traditions. The Chairman of the USSR Sports Committee said that IOC Executive Committee will be meeting in Lausanne on April 24 and that the Soviet side and the President of the Los Angeles Olympic Organizing Committee, Peter Ueberroth, will be taking part in order to resolve their problems.

These relate in particular to entry into the USA of "members of the Olympic family", to the refusal of a visa to the Soviet sports attaché, and to the anti-Soviet and anti-socialist campaign now launched in the USA.

Marat Gramov said the Soviet athletes are preparing for the Games and are naturally anxious to take part in them.

## DISCUSSING RIGHTS



Lomonosov State University on the Lenin Hills.







## HOME NEWS

### Round the Soviet Union

● **FLOOD WATER HAS STARTED TO FILL THE GIANT-STORAGE RESERVOIR ON THE SOLYANKA RIVER, WHICH FORMS A MAJOR LINK IN THE UNITED IRRIGATION SYSTEM NOW IN OPERATION ON THE BORDERS OF KAZAKHSTAN AND THE URALS.** The reservoir has a capacity of over twenty million cubic metres which is enough to irrigate several thousand hectares of crop land.

● **AN ORIGINAL SNOW-WHITE BUILDING, THE NEW HOME FOR THE REGIONAL DRAMA THEATRE, INTEGRATES WELL WITH THE REST OF THE ARCHITECTURE IN GORNO. A TOWN IN BYELORUSSIA.** The two theatres in the building accommodate a total of one thousand spectators. Less than one minute is required to change the scenery.

● **NORTHERN BAIKAL AND ITS SURROUNDINGS ARE AN IDEAL PLACE FOR HOLIDAYS.** This is the conclusion arrived at as a result of a study of the Baikal-Amur railway area carried out by the Siberian Department of the USSR Academy of Sciences. The study has helped Leningrad architects to design recreation and travel zones here. It is planned to set up a hunting and fishing reserve at the mouth of the Verkhnyaya Angara River, while 250 thousand hectares of the western slopes of the Barguzin Range will be turned into a state park.

● **ALMOND GARDENS HAVE BEEN PLANTED ON PREVIOUSLY BARREN SLOPES OF THE KIRGHIZ MOUNTAIN RANGE IN THE NORTH OF KIRGHIZIA, IN CENTRAL ASIA.** In addition to almonds it is thought that the orchards should yield rich hay harvests since the trees will help retain moisture in the soil as well as the growth of grass.

● **A REINDEER SHEPHERDS' FESTIVAL HAS TAKEN PLACE IN THE EVENK VILLAGE OF TOPOLNOYE, VERHOVANSKY AREA.** It featured reindeer races and ethnic games in the snow. Taking part were young men and girls who, on leaving the local secondary school, decided to become reindeer breeders. They appeared to school-leavers in Yakutia to follow suit.

## SUN AND EARTH

The existence of the Sun and the Earth continues to be mysterious in many respects notwithstanding the present-day advances of science and technology. Hundreds of observatories and other research institutions both in this country and abroad keep a watchful eye on the Sun. The Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, attached to the Siberian Branch of the USSR Academy of Sciences is also very active in this field. From its observatory, situated in the Sayany Mountains, in the Irkutsk Region, scientists are able to carry out a wide range of solar studies.

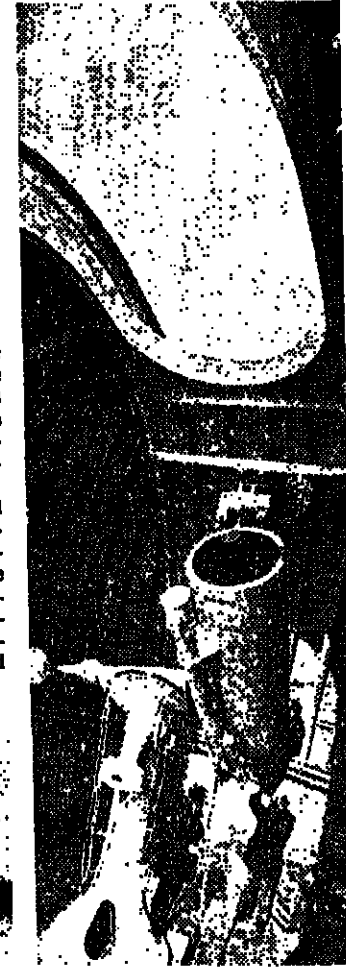
The observatory's horizontal telescope, for example, is used to observe the rotation and evolution of the solar corona and the configuration of magnetic fields inside solar spots.

A "man-made cosmos" is how people often describe the equipment in the possession of the space plasma dynamics lab. It is

used to simulate processes occurring in the solar atmosphere and in interplanetary space, with the aim of acquiring more knowledge about these processes.

Such knowledge is vital because solar processes interfere to a considerable extent with the Earth's weather and radio communications. Solar activity peaks and solar storms, occurring approximately once in ten years, affect many processes on Earth. Scientists have noticed that during these periods the climate changes, volcanoes become more active, harvests improve, birth rates for a number of animals rise and, some scientists maintain, there is a growth in epidemics.

The majority of equipment used was invented and manufactured in Siberia. Solar magnetographs, for instance, are to be found at many Soviet and foreign observatories. Siberian scientists co-sponsor ten international programmes in the field of solar-terrestrial physics.



A solar telescope in the Sayany Mountains. Photos by E. Bryukhanenko (TASS)

## MASSIVE PROFITS FOR LATVIAN STUD FARM

50 handsome thoroughbreds made a farewell round of the manege at the Tervete Latvian collective farm. This traditional event closed the auction that had brought the farm quite a good profit.

About thirty state, collective

and stud farms in various republics of the USSR bought the horses. The result of a cross between the local breed of mares and Hanover, Trakehnen and Arab stallions—these bay, black and golden thoroughbreds are noted for their height, strength,

and fine figures. They are mainly used in equestrian sports and for tourism.

The stud farm at Tervete set up nearly twenty years ago has become a major profit-making concern. Last year it made about three million roubles.

## INCREASED CAPACITY FOR ATOMIC PLANT

The third power unit of the Kursk atomic power plant, in Central European Russia, has reached its designed capacity of one million kilowatts.

Commissioned last October, the unit has already produced over two thousand million kilowatt-hours of power. The plant plays an important role in the shaping of the territorial production complex based on the mineral resources of the Kursk Magnetic Anomaly.

## COMPRESSORS FOR PIPELINES

The supply of compressors built in Sumy, the Ukraine, will help increase the through-put capacity of pipelines.

The power of each machine has been raised from 10 to 15 thousand kilowatts, while it is ten tonnes lighter in weight. Every day the compressor pumps millions of cubic metres of gas at a pressure of one hundred atmospheres.

## CANAL UNDER THE RIVER

The construction of a powerful irrigation complex has been completed in the south of Kirghizia, Central Asia. Its main project, 120-metre-long dykes laid under the capricious Kizil-Kurgat River, has been put into operation. The dykes' structure of this type, an underground water conduit, became a link for the entire "multistage" irrigation system.

Flowing along the concrete bed of the canal, water from the Andizhan man-made lake will be supplied to the pumping station which will carry it into the fertile but so far arid pine plateau. This year orchards and vineyards will be planted on nearly 1,000 hectares there.

Irrigators of Tien Shan are building projects in complicated mountainous conditions. Economical systems of artificial sprinkling irrigation, overhead pipes to supply water across deep canyons and other technical novelties help agricultural lands of the republic at big rates. By 1985 irrigated areas will be expanded by another 75,000 hectares.

The operations of all automatic stations in orbit. Such an independent space complex will inevitably have its own navigation and power generation facilities and will be equipped for multiple landing and change of crews. All these tasks which are quite feasible cannot, however, be resolved without human participation. I do not think humans will ever leave space now, the Academician concludes.

## FROM the SOVIET PRESS

### MAN IN SPACE — AN ANACHRONISM?

Twenty-three years after the world's first space flight made by Yuri Gagarin, manned spacecrafts and orbiting complexes have become routine and benefited various branches of science and economy. The success of automatic space probes is so impressive that it makes one wonder whether manned space flights will not soon become an anachronism.

This is the subject of an article in LITERATURNAYA GAZETA by Academician V. Avduyevsky.

Humans have always been and will remain the main creative power in science, he writes. No instrument, no advanced computer will ever be able to substitute for the intelligence, senses and intuition of the human being.

The human eye has the unique ability of "sensing" the slightest change and is perfectly suited to highly discriminative recognition of various images. It is the human being that can identify the most important components in a stream of information most efficiently. Without human participation, astrophysical, astrophysical, technological, medical-biological and many other types of research would be impossible. As for the instruments, computers, and electronic processing of experimental data, they are required to make man even smarter.

In the future the orbiting stations will be turned into space complexes offering many conveniences and consisting of research, production, residential and medical zones. Their crews will engage in research, controlling, repairing and adjusting, as needed, the numerous automatic machines.

Even today, controlling space flights from the ground is cumbersome. The time is not far off when a flight control centre will be located in space. Equipped with advanced computers, it will be capable of controlling

the operations of all automatic stations in orbit. Such an independent space complex will inevitably have its own navigation and power generation facilities and will be equipped for multiple landing and change of crews. All these tasks which are quite feasible cannot, however, be resolved without human participation. I do not think humans will ever leave space now, the Academician concludes.

### LASER TREATS PEOPLE

Ever since the birth of lasers doctors, especially surgeons, have shown much interest in using these devices to treat various ailments, writes PRAVDA. This is explained by the nature of the laser beam, which is able to dissect tissues while simultaneously stop bleeding, make the wound's surface sterile and vaporize diseased tissues.

The paper notes that laser medicine in the USSR has made big gains, with important contributions from the progress of optics and electronics, which helped develop a family of medical lasers enjoying wide acceptance abroad. They are used for diverse purposes, the paper notes. The qualities of the laser beam make possible its use also in plastic surgery and cosmetology.

### THE COAL OF EKIBASTUZ

The Ekibastuz coal basin in south-western Siberia provides roughly one in four tonnes of coal shipped annually in the Soviet Union, writes the NAR-KAZHIZN (Science and Life) magazine. In the current five-year period (1981-1985) Ekibastuz will yield nearly 400,000,000 tonnes of coal, nearly half this amount to come from the Bogatyr quarry. Its annual production capacity of 50,000,000 is unrivalled in the entire world. The coal of Ekibastuz, the magazine points out, is noted for its hardness, with its rock seams often being as hard as granite. New processes have been introduced

for the first time there to achieve high efficiency using rotor excavators. First, a coal block is exploded without damage to its structure and then excavators go to work.

The world's two most powerful rotor complexes producing 5,000 cu m of coal an hour work at the Bogatyr quarry. In other words, each of them in only one hour produces an amount a medium-capacity mine does in one day.

The exhibition of Economic Achievements of the USSR, which acquaints its many visitors with the economic, scientific, technological, social and cultural development of the USSR, will have its image markedly changed in the next decade, writes TRUD.

Apart from the reconstruction of many buildings already familiar to many people, on both sides from the main entrance will spring up the new pavilions, "Moscow—capital of the USSR", "Construction", "Cosmos", "Industry" and "Transport". The plans are to create large open exposition grounds and to build a new information centre and a House of Symphonies.

The draft master plan for the exhibition reconstruction and development now being formulated, lays special emphasis on the development of the transportation network around the exhibition. It is no secret that the small motor trains now running around the grounds can hardly meet the needs of all the visitors, which is why the draft plan calls for the creation of a motorist road, the paper points out.

Another transportation novelty contained in the draft are moving sidewalks. Built on both sides of the Central Alley — from the main entrance to the Central Pavilion — such sidewalks will help quickly cover a fairly large stretch of the route.

Last but not least, a cable road for the exhibition is also on the drawing board.

## HOME NEWS

### Places to visit



Church of Our Saviour at Abramtsevo.

## ABRAMTSEVO

The life and work of many famous Russian painters, writers, actors, architects and artists is closely linked to the Moscow Region. Abramtsevo was one of the main such cultural centres.

The fame of the estate lying fifty-seven kilometres to the north of Moscow, in the direction of Yaroslavl, began in 1843 when it was purchased by Sergei Aksakov, a writer and man of profound education, a true Russian intellectual. Abramtsevo consists of a one-storey house, a lindan alley, ponds, and a birch grove. Instead of being fenced off from the surrounding countryside, the park merges with the forests and meadows. The picturesque local scenery captivated not only the Aksakov family but also their friends. Visitors to the estate included the writer, Ivan Turgenev and the actor, Mikhail Shchepkin. Nikolai Gogol had a permanent room in the attic.

In 1870 (11 years after the death of Sergei Aksakov), the estate was bought by Savva Mamontov, the industrialist, businessman, and art connoisseur. Thus another bright page began in the history of Abramtsevo. Mamontov had the rare gift of discovering and attracting talent. An Abramtsevo art circle was formed aimed at restoring the best national traditions of Russian art, at bringing it closer to the life and customs of the people.

Ilya Repin, Valentin Serov, Mikhail Vrubel, Viktor Vasnetsov, Isak Levitan were just some of the leading Russian painters who lived and worked here. The house in which Nikolai Gogol had read "Dead Souls" to the Aksakov family was now the gathering place for Mamontov's friends who argued and fantasized under Valentin Serov's painting of "A Girl With Peaches", a portrait of the Mamontovs' daughter, Vera. There is a lot that can be written about the old house and park, now a protected monument of historical and literary interest, but in order to feel the atmosphere of Abramtsevo, and its fascination, one has to go there.

Oleg VISHNYAKOV

## Science and technology

### ANOTHER WINTER IN ANTARCTICA

Soviet researchers have joined forces with geophysicists from the GDR and Cuba to observe natural phenomena on the Antarctic continent. Over three hundred scientists and experts will spend the winter under the Soviet flag.

Professor Yuryevy Korotkevich, in charge of the Soviet Antarctic programme, noted that the round-the-year research now includes the entire complex of sciences devoted to the study of nature in the Arctic and Antarctic—from the ionosphere to the structure of the earth's crust under its armour of ice. He made special mention of the drilling of the ice cap at the Vostok station, the planet's pole of cold, situated at the coldest point on earth. While the well is being drilled, core samples will be taken representing a "frozen chronicle" of the planet's climate over many millennia.

### TO THE MYSTERIES OF THE REMOTE STARS

Already for one year, a successful watch has been kept in orbit by the automatic space observatory Astron. On its board operates the biggest orbital ultraviolet telescope. Its length is five metres, and the diameter of the tube is nearly one metre. Coupled with it is a telescope counter which registers X-ray radiation.

The space station has conducted researches of twenty galaxies and superremote stars, quasars, and the galactic background, reports Director of the Crimean Astro-Physical Observatory Academician A. Severny.

commenting on the results of the one-year watch.

One of the last films received from the space communications centre and processed at the computer centre of our observatory shows an anomaly in the chemical composition on one of the stars in the Draco constellation. Among other things was discovered a fairly high composition of lead and tungsten, and one hundred thousand times more uranium than in the solar system.

Important results have been obtained in investigation of the so-called binary stars. Such a long scientific experiment with the automatic observatory in orbit with the highest precision at a distance of two hundred thousand kilometres, from our planet, said in conclusion Academician A. Severny, is conducted for the first time. This has allowed the world science to make a major step in cognition of the fundamental mysteries of the Universe. The flight of Astron continues.

## OF INTEREST

### A museum in a hollow of a tree

The art of folk craftsmen — chasers, embroiders, potters and carvers living in the Uzbek village of Satrab can be seen in a museum that is placed inside a hollow in a tree.

It is rather two huge thousand-year-old plane trees that grew into each other and formed a protected space of twenty square metres and two metres in height. Once this place was used for a school. Then a folk craft museum was set up under the crowns of the trees which remain green until now.

## 'Spring Gudauri-84'

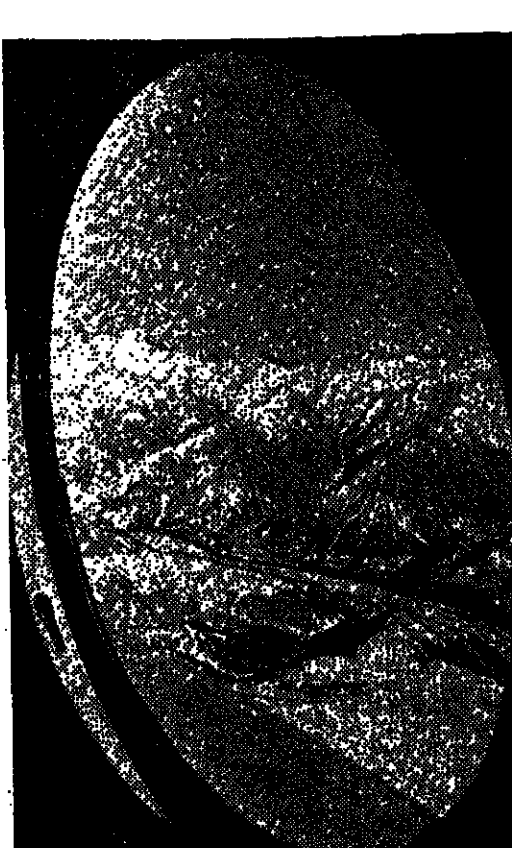
Winter sports enthusiasts anxious for a late spring break should go to Gudauri, in the Caucasian high-altitude Kazbegi District, in Georgia. Located at the 1200 km of the Military Georgian Highway, Gudauri compares well to the world's best winter resorts. Situated at its comfortable hotel, relaxed at 2,200 metres above sea level, and breathe in the bracing mountain air from the cable cars. All skiing equipment can be hired locally. By 1990, there will be a hotel complex at Gudauri capable of accommodating some six to eight thousand people at a time. The first ever competitions to be held on the slopes of the Greater Caucasus developed into a major winter sports festival which became known as the "Spring Gudauri-84".

## The ancients also built with tufa

Tufa, as a building stone, was used in the ancient state of Urartu. Evidence of this is a famous unknown monument discovered within the city limits of Yerevan, the capital of the Armenian republic.

Excavator-operator V. Davtyan during digging operations found an entrance to an underground room with an area of nearly ten square metres. It turned out that the walls of the room were lined with heavy tufa blocks, the floor was paved with the same material, and even the ceiling had tufa beams.

This is the first monument of the 7th century B.C. discovered on the territory of the Armenia. Ceramic vessels were also preserved covered with the characteristic Urartian red glaze and objects of iron and silver — a long sword, a belt and arrow tips. The find has Urartian culture. It has also allowed to supplement the information about the level of the development of the production in the Urartian state.



A portland view of the Greater Caucasus. Gudauri, the right place to get a tan. Photos by S. Balshinovich (TASS)

## VIEWPOINT

### The Baikal-Amur Railway: a year ahead of schedule

Leonid KORENEV, economic observer

On November 7, 1984, when this country celebrates the 67th anniversary of the Great October Socialist Revolution, the last links will be joined in the railway track running from the centre of Eastern Siberia to the Pacific coast. This, in turn, will mean that the through traffic along the Railway some of whose sections are already in operation, will be opened a year ahead of the planned deadline. This commissioning a year before schedule will be of great significance not only for the builders themselves, whom one can quite understand, but also for the entire Soviet economy.

What is the reason? Why does the construction of a railway which is not the longest either in the world or in the Soviet Union itself make part of the most major socio-economic programmes of the Soviet Union?

In order to understand this, one has to take a look at the map. Siberia is one of the main raw material pantries of the planet. It has everything ranging from coal, oil, and gas to iron and copper, to gold and diamonds. The reserves of the fuel-and-energy resources alone are estimated here at almost one-third of the world's at a time when geologically the bowels of Siberia have not been prospected in much enough detail. It is not for nothing that the Soviet Union links with the further development of Siberia its main economic prospects for the end of the 20th century and the beginning of the 21st.

However, the territory of Siberia is insufficiently provided with transport routes without which the development of the thousand kilometre expanses is simply impossible.

The Siberian rivers — the Ob, the Yenisei, and the Lena — cross this region almost strictly south of north. The Northern Sea Route lies along its coast from Murmansk to Magadan in the Far East.

Southern Siberia is crossed by the Trans-Siberian Railway, which since the beginning of the century has reliably and honestly been serving the economic development of Siberia.

Thus, there are two latitudinal lines of communications which encompass Siberia, and the rivers which link them along the vertical lines.

However, today, they are not enough in order to ensure a further development of the area.

Additional latitudinal railways were needed, since the entire many-year Siberian experience has confirmed that this is the most reliable and all-weather type of transport in the severe climatic conditions of Siberia.

Besides, the Railway in itself means involvement in the economic sphere of additional 1.5 million square kilometres. The Railway is also another exit for Siberia to the Pacific, as the port of Vostochny, which in the future is to become the biggest in this country, is turning into its oceanic gateway. Finally, the Railway increases the transport capacity of the most powerful continental bridge between Europe and Japan via Siberia.

All this taken together gives a powerful new impetus to the economic development of Siberia and, as a consequence, of the Soviet Union as a whole.



# ENTERTAINMENT

## PROFILES

# VALERY LANTRATOV



While still a student at the Moscow ballet school Valery Lantratov was noted for his single-minded approach to his future career of ballet dancer. From his very first steps at the Stanislavsky and Nemirovich-Danchenko Musical Theatre, it was clear to an experienced observer that he was a gifted dancer.

Audiences took to him at once, having memorized his passion, swift movements, absorption, his captivating emotionality and artistry. When Lantratov dances, the theatre is automatically filled to overflowing.

During the seven years he has been with the company, he has travelled the road from member of the corps-de-ballet to leading soloist. Lantratov has had to face more than a few difficulties in the course of his career and that he has attained his present position is due solely to his talent, to his tremendous capacity for work, to his ability for creative thinking.

Lantratov's individuality was shown off to good advantage in Nikolai Sidelnikov's ballet "Stepan Razin". The great breadth of Razin's personality, his place in history and his ultimate fate intrigued the dancer. I am happy I've danced this, he says. A wonderful character! Cold and passionate at the same time, he combined ruthlessness with an unswerving sense of justice, unbridled cruelty with compassion for the people's misfortunes.

According to Alexei Chichinadze, the theatre's chief choreographer, "In this ballet Valery Lantratov gives full voice to his star quality as a young virtuoso". Lantratov's individual approach to the image of Razin was so striking that Chichinadze staged another version of his production especially for him.

The last season was a particularly busy one for Lantratov: he danced Armon in Khachaturian's "Gayane-sultu"; he gave a dynamic and modern interpretation of the role of Peachum, the gang leader in "Boomerang" by McLaughlin, choreographed by Boris Eifman after Brecht's "Threepenny Opera"; Franz in Delibes' "Coppelia"; Bazile in "Don Quixote" by Minkus, a part every dancer dreams of, but one which few tackle successfully.

Lantratov's approach to famous roles is always original, avoiding alien plasticity. His characters are inevitably realistic, true to life and easily recognizable. His work on the stage of character begins long before he appears on stage. Perhaps it is the way Lantratov manages to inject his dancing with the impressions he derives from everyday life that explains the three-dimensional depth and humanity of his interpretations.

My favourite parts are Stepan Razin and Bazile, says the dancer. One can always find new traits in them, one can work forever on the dramatic interpretation of the image. And, this I believe, is the main thing.

Boldness, great sense of purpose and thoughtfulness, a powerful temperament, plus carefully modeled dance. These are but some of Lantratov's distinguishing traits as a ballet dancer. As for his interests, he is keen on music, literature and driving. Great vitality and perseverance — such are the characteristics forming the keystone of his personality and defining his relationship both to his life and to art.

Yelena YEROFYEVA

In the photo: Valery Lantratov dancing the Prince in Prokofiev's ballet, "Cinderella".

## Music of Finland

A delegation of the Union of Finnish Composers was recently in Moscow. At the All-Union Composers House a concert was held with great success, featuring works by noted musicians.

At the Composers House there was a "round-table" meeting where Soviet and Finnish colleagues discussed the problems of contacts and creative exchange in the musical field.

The meeting was very fruitful.

## Rustaveli in Esperanto

The Georgian Melantere Publishers have put out a book of quotations from the 12th-century classic poem, "The Man in the Panther's Skin", by Shota Rustaveli — in both Georgian and Esperanto. The book is supplied with a Georgian-Esperanto glossary.

The translation has been done by Zurab Makashvili, a research associate of the Botanical Gardens of Tbilisi, whose hobby is the study of the Shota and pre-Slavonic languages as well as Esperanto.

Zurab Makashvili, who is a member of the Esperanto Association recently set up in Georgia, has also translated into Esperanto poems by the Georgian poet, Nikolai Gogolashvili. He is now working on a translation of an anthology of Georgian 12th-century poetry.



Between April 19 and 20, many towns and cities in the combined and autonomous republics of the Soviet Union will be holding Days of Polish Culture dedicated to the 40th anniversary of the liberation of the Polish People's Republic. Taking part will be many performers and leading companies — among them Mariya Rodionova (photo), a popular Polish variety singer.

# BUSINESS

## British Technical Week in Moscow

More than 30 leading firms from Britain participated in the British Technical Week, held at Moscow's International Trade Centre. It was sponsored by the London Chamber of Commerce and Industry and the British Overseas Trade Board in collaboration with the USSR Chamber of Commerce and Industry and the USSR State Committee for Science and Technology.

Such famous firms as Shell, British Petroleum, ICI, John Brown and others acquainted Soviet experts with their scientific and technical achievements. Other participants in the Week were smaller companies

which are taking their first steps in the promotion of trade with the Soviet Union. The subjects of the Week included something new in the technologies of such branches as chemistry and petrochemistry, power engineering and instrument-making. Great attention was also paid to the automation of industrial production.

During the Week views were exchanged between British and Soviet experts. The guests from Britain gave special lectures on a wide range of industrial and technological problems.

Many British firms participating in the Week maintain trade

contacts with Soviet foreign trade organizations. Last year Britain supplied the USSR with some types of equipment for the West Siberian gas pipeline, as well as for such branches as power engineering and agriculture. As a result of scientific and technological cooperation new equipment was developed on the basis of both countries' achievements. Thus, Soviet and British experts developed an automatic coal cutter-loader to operate in hard rock, which has no equal in the world.

## USSR-Austria: cultural relations developing

Over the past week a government delegation from Austria stayed in this country at the invitation of the Copyright Agency (VAAPI) of the USSR. The delegation was led by the Austrian Minister of Culture, Dr. Robert Dietrich, one of the most authoritative international legal experts who led the delegation to the USSR.

Our contacts are successfully developing. Use between certain publishers in the two countries having become traditional. Over the past few years the USSR put out a great number of works by modern Austrian authors in Russian translation while the interest towards Austrian music grows in the USSR, too. New Austrian compositions will be performed later this year at the Second International Musical Festival in Moscow.

The Austrian public comes to know ever more Soviet literature, drama, music and art.

The number of contracts for publishing Soviet authors in Austria grows every year, said Nikolai Voshchinskiy, Deputy Chairman of the Copyright Agency (VAAPI) of the USSR. The Austrian publishers take an active part in international book fairs held in the USSR.

The latest one that took place in 1983 featured a large Austrian exposition.

Natalya ROSNITSKAYA

## Fruitful ties with ENI

Nearly 24 thousand million dollars is the sum of the turnover last year between the Soviet foreign trade organizations and the Italian concern ENI. This was reported by the head of the office of the Italian concern in Moscow, M. Reali. He said that the concern last year bought from the Soviet Union energy carriers, ammonia, and other goods, delivering in its turn equipment for gas pipelines and for chemical, petrochemical and textile industries. Taking part in the business co-

operation with the Soviet Union were practically all the firms which form part of ENI, including Agip, Snam, Nuove Pioline, Savio and Enichem.

This year, declared M. Reali, we intend to expand the cooperation with the Soviet partners in all the directions. Such are, for example, increases in the purchases of Soviet goods and our participation in the construction of a coal-carrying pipeline in the Soviet Union, and development of the continental shelf of the Barents Sea.

## New Soviet export item

Refrigerators, TV sets, radio receivers, air conditioners and other durables of Soviet make have become popular in the market of the Federal Republic of Germany.

The impression is that before us nobody paid attention to this item of imports from the USSR, Erhard Tiltmann, a spokesman of the GEWIKWA company, told an MNI correspondent. To start with, we bought 20,000 Biryusa refrigerators and a consignment of small-size TV sets. All refrigerators were sold out rather quickly. Not long ago we signed a contract with V/O Tekhnimport for the delivery of over 10,000 Soviet radio receivers.

The Moscow office of this company was set up by the well-known Ivka concern specially to expand trade transactions with the USSR. Ivka supplied the USSR with plenty of machines and equipment for the food, woodwork, furniture and cement industries. It actively cooperates with Soviet partners in machine-tool making and automobile construction industries. E. U. Matz, Deputy Director-General of the concern and chairman of the GEWIKWA council, who arrived in our capital, said that the purchases of Soviet goods would, probably, be expanded.

There is a lot in your country to buy, said Herr Matz. I went to the exhibition of goods put out by the local industry. There were so many good things on display — caskets with paintings, chinaware, the famous Khokhlova. I think that a third of the exhibits could be bought. They are made with great taste.

Have there been any reclamations? asked the MNI correspondent.

None, so far, replied E. Tiltmann.

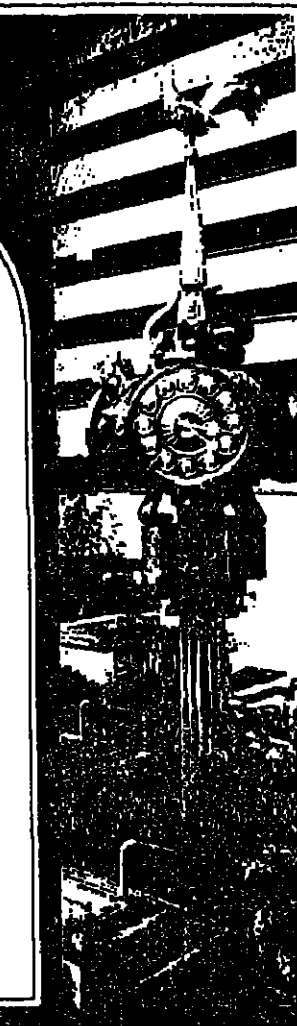
## SOVINCENTR

V/O SOVINCENTR  
WORLD TRADE CENTER  
CONGRESS HALL

April 19, 20, 21  
at 8.00 p.m.

Alla  
PUGACHOVA  
sings

Reservation of tickets  
at WTC service bureau  
Tel. 253-27-60  
253-27-63  
Payment in hard currency



## KONEISTO NORGE EXPANDS OPERATIONS

Koneisto Norge sells Soviet machine tools and industrial equipment in Norway.

The first Soviet machine tools sold in Norway some 20 years ago are still going strong, noted the company's director Ojan Orjanen. The excellent reputation enjoyed by Soviet machine tools has enabled us to sell over 3,000 of them to date in Norway. Soviet tools account for five per cent of Norway's versatile machine-tool imports. 20 per cent of the machine tools at Norwegian vocational training schools are manufactured in the USSR.

Starting out by trading in machine tools, the firm has managed to diversify the assortment of Soviet goods it sells in Norway. Now it does a successful trade in forge-and-press equipment, measuring, cutting and bench and erection assembly tools, electric motors, generators, and equipment for the shipping,

mining and woodworking industries. The firm's scope of operations is growing, and it now represents ten Soviet foreign trade associations in Norway, accounting for over one-third of Soviet-Norwegian trade.

Via Koneisto Norge the USSR buys from Norway paper, viscose cellulose, ships and on-board equipment, timber, and crystal silicon. Soviet-Norwegian cooperation in the opening up of the oil fields on the Barents Sea shelf, holds out a lot of promise for the company.

At present Koneisto Norge is selling Soviet high technology in Norway. Two Norwegian companies have bought a couple of IR-800 digital control processing centres made by the Ivanovo machine-tool construction association. The machine tools are already in operation and latest is being shown in them by many other Norwegian companies.

## Contacts and contracts

A regular meeting held in Moscow by the CMEA Committee on Cooperation in Material and Technical Supplies has examined the questions of further deepening of cooperation between the member-countries in saving economy and rational use of the fuel and energy and raw material resources, and has adopted long-term programmes for cooperation in per-

fecting the material and technical supplies and development of the warehouse industry.

The third meeting of the Working Group on Energy and Electrification attached to the Soviet-Austrian Mixed Commission on Economic, Scientific and Technological Cooperation has taken place in Vienna. Discussed were issues of mutual power supplies and the results were considered of operating joint power systems as well as possible expansion of mutual supplies and services in power construction.

The Soviet Mi-8 helicopter, used on the most complicated sections of power transmission lines and at major industrial construction sites, is proving a reliable ally to Bulgarian builders. It also delivers concrete, large-size structures, and help assemblers in their work.

As a result of the Soviet-Pakistan talks which were held in Moscow, a protocol was signed on mutual deliveries in 1984 of goods, along with other documents which regulate trade relations between the two countries. Among the goods exported from the USSR to Pakistan there will be machines and equipment and some raw materials.

## Philately



## Cooperation in outer space

The USSR Ministry of Communications has issued a three-stamp series and a souvenir sheet to mark the Soviet-Indian cooperation in outer space within the framework of the Inter-cosmos programme. One stamp shows joint meteorological research in outer space, another — space geodesy, and the last one — Indian satellites lifted up by Soviet rockets. The souvenir sheet shows the joint Soviet-Indian crew at work aboard the Salyut-7 station. The stamps cost 5, 20 and 45 kopeks, and the sheet 30 kopeks.

## FACTS AND EVENTS

Exhibitions. An exhibition of paintings drawn from the collections of the Hermitage Museum in Leningrad and the Pushkin Museum of Fine Arts in Moscow, has opened in Tokyo. On display are 63 works by Picasso, Gauguin, Matisse, Cezanne and other major West European artists.

Awards. A group of Afghan workers in culture and the arts have been presented with the 1983 Soviet-Afghan Friendship Prize in Moscow. These prizes

are awarded to the best works of literature, music, art, theatre, cinema and journalism, reflecting the progressive transformations taking place in Afghanistan and promoting peace and Soviet-Afghan friendship.

Books. The Mongolian State Publishers have issued a two-volume collection, entitled "Soviet Poetry" in a large number of copies. It includes poems by Blok, Tyndkovsky, Vinokurov and Voznesensky, as well as works by leading poets from the Soviet constituent republics. The translations are made by well-known Mongolian poets and translators.

## ART ENCYCLOPAEDIA FOR ALL TASTES

The "Popular Encyclopaedia of Art" shortly to be published in this country is aimed at a wide range of readers. It will cover the fine, applied and decorative arts as well as the architecture of all epochs and peoples. There will be colour plates of masterpieces from the collections of the world's largest museums and art galleries — the Hermitage, Musée du Louvre, Musée du Prado, the Dresden and the Tretyakov galleries.

## SONGS OF RUSSIA



A performance by the Ryazan Folk Choir. Photo by Andrei Stepanov

## WHAT'S ON!

April 17-20

### THEATRES

Bolsbol Theatre (Sverdlov Sq). 17 — Prokofiev, "Ivan the Terrible" (ballet). 18 — Verdi, "La Traviata" (opera). 19 — A concert by Polish artists. 20 — Verdi, "Un ballo in maschera" (opera).

Stanislavsky and Nemirovich-Danchenko Musical Theatre (17 Pushkinskaya St). 17 — Pugnol, Gilese, Vasilenko, "Emeralda" (ballet). 18 — Offenbach, "La belle Helene" (opera). 19 — An evening of one act ballets. 20 — Rimsky-Korsakov, "May Night" (opera).

Operetta Theatre (6 Pushkinskaya St). 17, 18 — Strauss, "Die Fledermaus". 19 — Ilyin, "A Composition on the Theme of Love". 20 — Kalman, "The Gypsy Princess".

Cineama: "Balestar" (17 Tretyakovskaya St). Metro Novorizavskaya St. Bus 92.

A retrospective show of Polish films.

Cineamas: "Varnharen" (13 Leningradskaya St). Metro: Volkovskaya; "Zaryadya" (11 Moskovskaya St). Metro: Ploshchad Nogin; "Grass" (17 Lomonosovskaya St). Metro: Universitetskaya.

Variety Theatre (20/2 Berninskaya St). 17 — A two-part variety performance, featuring Yevgeny Petro-

syen, winner of the all-Union competition of variety performers. 19 — An evening of Vadim Rusanov, RSFSR People's Artist, accompanied by the Sputnik ensemble. Olympic Sports Complex (Prospekt Mira). 20 — "A Day's Work", a performance by St. Petersburg Music Hall.

### FILMS

A Sudden Leak (Dovzhenko Film Studios, USSR).

About the courageous and dangerous profession of a mine-rescuer. The film takes place in a mine where a sudden leak of gas occurs.

Cineama: "Balestar" (17 Tretyakovskaya St). Metro Novorizavskaya St. Bus 92.

A retrospective show of Polish films.

Cineamas: "Varnharen" (13 Leningradskaya St). Metro: Volkovskaya; "Zaryadya" (11 Moskovskaya St). Metro: Ploshchad Nogin; "Grass" (17 Lomonosovskaya St). Metro: Universitetskaya.

### CONCERT HALLS

Variety Theatre (20/2 Berninskaya St). 17 — A two-part variety performance, featuring Yevgeny Petro-

### EXHIBITIONS

Central Artists Club (10/14 Kryukovskaya Embankment). About 700 works by artists from Tajikistan. Paintings, sculpture, drawings, and theatre decor, as well as items of applied and folk art on display. Daily, except Monday, 11 a.m. to 8 p.m. Metro Park Kultury. Trolleybus 10.

Bakhrulin Theatre Museum (11/12 Bakhrulin St). An exhibition marking the 175th anniversary of the great Russian writer, Nikolai Gogol. Daily, except Tuesday, noon to 7 p.m. Wednesday and Friday, 2 p.m. to 5 p.m. Metro Ploshchadskaya.

Moscow Spartak. 18 — Moscow Dynamo vs Novosibirsk Sibir. 6.45 p.m. (both days).

Spartak and Dynamo are vying for silver medals in the USSR championship.

FOOTBALL  
Torpedo Stadium (4 Vostochnaya St). 18 — International friendly meeting. USSR vs Czechoslovakia. 7 p.m.

RACING  
Hippodrome (22 Begovaya St). 18, 20 — Racing and trotting. 6 p.m. (both days).

None, so far, replied E. Tiltmann.

### WEATHER

April 17-20

Warm weather without showers is expected. Night temperatures of 1°, 6°C and of 16°, 20°C during the day at the beginning of the period (12°, 16°C later on). SW and W wind.

The Southern Hemisphere is in the depths of autumn. Sharp weather changes are characteristic for this time of the year here just as they are for the Northern Hemisphere in spring. A twenty-degree time in temperature was recorded at the Vostok station in Antarctica where temperatures now stand at 62°C and cloudy weather with snow has replaced the previously clear skies.

### SPORTS

TABLE TENNIS  
Swiss Sports Arena (Luzhnikovsky St). 17, 18, 20 — European championship. On April 17, at 10.30 a.m. and 8 p.m.; on April 18-20, at 10 a.m. and 7 p.m.

The main contenders for medals in the 14th European championship are teams from Sweden, Hungary, Yugoslavia and the USSR.

ICE HOCKEY

Palace of Sport (Luzhnikovsky St). 17 — Central Army Club, vs